



State of California
Department of Water Resources

PROPOSITION 50 DESALINATION GRANTS – 2005 FUNDING CYCLE

FINAL FUNDING AWARDS

(May 25, 2005)

Desalination is gaining considerable attention from scientists, resource planners, policy-makers, and other stakeholders. The main driving force for this renewed interest in water desalination is the remarkable technological advancement in desalination processes, which has recently led to a much lower cost of desalinated water than was previously attainable.

In 2003, the California Water Desalination Task Force was convened by the California Department of Water Resources (DWR) pursuant to Assembly Bill 2717 with the aim of looking into potential opportunities and impediments for using brackish water and oceanwater desalination in California, and to examine what role, if any, the State should play in furthering the use of desalination technology. One of the primary findings is that economically and environmentally acceptable desalination should be considered as part of a balanced water portfolio to help meet California's existing and future water supply and environmental needs.

The California Desalination Task Force identified the potential water supply benefits associated with the increased use of desalinated water as well as the challenges facing California in regard to large scale desalination use. DWR will continue its efforts to provide technical and financial assistance to pursue this important and emerging water supply strategy.

In November 2002, California voters passed Proposition 50, the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002. This grant program implements Chapter 6 (a) of Proposition 50 (Water Code Section 79545 (a)).

A draft Proposal Solicitation Package (PSP) was released by DWR's Office of Water Use Efficiency and Transfers on July 8, 2004 for public comments. DWR held two public workshops on August 12, 2004 in Northern California and August 17, 2004 in Southern California. The public comment period ended August 23, 2004. On September 9, 2004, the PSP was presented at the California Bay-Delta Public Advisory Committee (BDPAC), and on October 14, 2004, the PSP was endorsed by the California Bay-Delta Authority (CBDA). On October 25, 2004, the final PSP was released and made available in hard copy and posted on DWR's website to accept proposals. On November 15, 2004, DWR conducted a Public Workshop for the final PSP, and by January 13, 2005,

the due date to submit applications, DWR received 42 eligible applications requesting \$71.3 million. There is \$25 million appropriated for funding brackish water and oceanwater desalination projects.

Eligible to apply were entities involved with water management activities including: cities, counties, joint power authorities, public water districts, universities and colleges, tribes, nonprofit organizations, watershed management groups, State agencies, and federal agencies.

After receiving the 42 eligible applications requesting a total of \$71.3 million, a Desalination Review Panel was formed to help the State review the applications based on the criteria set forth in the PSP. The Desalination Review Panel, comprised of members representing local, State, and federal agencies, as well as other stakeholders, evaluated the proposals in relation to the seven criteria established in the PSP. Scoring sheets were provided to the reviewers where each criterion is further detailed to depict details of the criterion as outlined in the PSP. Panel members submitted their individual draft scores and comments for the proposals they reviewed. Then on March 24, 2005, the Desalination Review Panel met and ranked eligible projects for the different project categories: research and development; feasibility studies; pilots and demonstrations; and constructions.

On March 25, 2005, a Desalination Funding Agency Team appointed by DWR - comprised of representatives from DWR, Department of Health Services, Energy Commission, and Bureau of Reclamation - reviewed the scores and the ranking recommend by the Desalination Review Panel and made its recommendation to DWR. A consensus ranking list of the reviewed projects as recommended by the Desalination Review Panel and adopted by the Proposition 50 Desalination Agency Team can be viewed at: <http://www.owue.water.ca.gov/recycle/DesalPSP/ConsensusRank.pdf>.

DWR, as a result, issued a Draft Staff Funding Recommendation on March 30, 2005. On April 12, DWR conducted a public workshop to provide information about the Draft Funding Recommendation, announce the projects recommended for funding, and review the award contracting process. The minutes of the April 12 meeting can be viewed at: <http://www.owue.water.ca.gov/recycle/DesalPSP/12Apr05Minutes.pdf>. DWR also opened a comment period on the Staff Funding Recommendation until April 19, 2005 (see Public Advisory at the following link: <http://www.owue.water.ca.gov/recycle/DesalPSP/Advisory040505.pdf>.)

On April 14, DWR presented the Staff Draft Funding Recommendation to the joint meeting of the CBDA and the BDPAC - Agenda item14-6-C (Meeting agenda provided in Attachment E). The CBDA, via its resolution 05-04-07, recommended that DWR proceed with the Proposition 50 Water Desalination Grant-2005 Cycle Staff Recommended Projects. Based on the review process as presented above, DWR has decided that the available \$25 million under this Desalination grant cycle be used to fund 25 different projects including: 3 constructions, 6 pilots and demonstrations, 7 research and development projects, and 9 feasibility studies. The fund distribution for the different categories is summarized in the following table.

Project Category	(Number of Funded Projects / Total Projects)	Projects Total Cost (\$)	Requested (\$)	Grant Amount (\$)	State Share to Total Cost (%)
Construction Projects	(3/8)	104,359,043	15,000,000	8,930,744	9%
Pilot & Demonstration Projects	(6/14)	26,438,272	10,474,232	7,974,516	30%
Research & Development	(7/11)	13,804,295	6,004,746	6,004,746	43%
Feasibility Studies	(9/9)	4,437,061	2,089,994	2,089,994	47%
Total	(25/42)	149,038,671	33,568,972	25,000,000	17%

DWR believes that this funding distribution will achieve great public and environmental benefits. This funding recommendation provides 54 percent of the fund to brackish water desalination projects and 46 percent to ocean desalination projects with a statewide geographically balanced distribution (see map at <http://www.owue.water.ca.gov/recycle/DesalPSP/MapDesalFundingDistribution.JPG>.)

With these funding awards, the State is funding well documented desalination construction projects with high potentials of success. The State is partially funding the first three construction projects as they were ranked by the Desalination Review Panel and recommended by the Proposition 50 Desalination Agency Team. This will help create new water from the ocean and unusable brackish groundwater to help local agencies meet their current or future water shortages through feasible desalination projects, which in turn, will create regional and statewide benefits. All applicable laws and concerns will be addressed before the implementation of the awarded projects. This implements Proposition 50 provisions that authorize the construction projects to benefit from this grant funding, allowing the State to have access to data, knowledge, and experience gained as a result of implementing the awarded projects and make knowledge available to other potential projects. The State is supporting feasible desalination projects while working toward meeting water supply benefits projected by the California Desalination Task Force and the 2005 California Water Plan Update. The number of funded projects was increased by lowering the level of funding for construction projects, resulting in the funding of two additional pilot projects (brackish water and oceanwater desalination pilots), which are expected to provide locals and the State with valuable information for informed decisions. These funding awards are consistent with principles outlined in the PSP process of encouraging the development of all practical desalination technologies and both brackish and ocean desalination feedwater sources.

FUNDING AWARDS

Construction Projects (3 projects out of 8 projects)

DWR ID	Applicant	Project Title	Project Cost	\$ Requested	\$ Awarded
032	Marin Municipal Water District	MMWD Desalination Plant	\$77,172,043.00	\$5,000,000	\$3,330,744
037	Alameda County Water District	Phase 2 Brackish Groundwater Desalination Facility	\$10,141,000.00	\$5,000,000	\$2,800,000
034	Inland Empire Utilities Agency	Chino II Desalter Expansion	\$17,046,000.00	\$5,000,000	\$2,800,000
Total			\$104,359,043.00	\$15,000,000	\$8,930,744

Pilots and Demonstration Projects (6 projects out of 14 projects)

DWR ID	Applicant	Project Title	Project Cost	\$ Requested	\$ Awarded
029	City of Santa Cruz	Test Technology Innovations and Optimize Systems in the City of Santa Cruz Desalination Pilot Plant	\$3,971,007.00	\$1,982,601	\$1,982,601
005	Board of Water Commissioners of the City of Long Beach	Under Ocean Floor Seawater Intake and Discharge Demonstration Project	\$5,180,000.00	\$2,500,000	\$2,000,000
022	Eastern Municipal Water District	Desalination Recovery Enhancement and Concentrate Management Study	\$790,000.00	\$395,000	\$395,000
031	City of San Diego	San Pasqual Brackish Groundwater Desalination Project - Phase III	\$5,090,000.00	\$2,500,000	\$1,500,000
012	Coachella Valley Water District	Coachella Valley Groundwater Desalination Project	\$1,193,830.00	\$596,915	\$596,915
028	West Basin Municipal Water District	Demonstration of Integrated Membrane Seawater Desalination Using Single-Pass RO for the Los Angeles Region	\$10,213,435.00	\$2,499,716	\$1,500,000
Total			\$26,438,272.00	\$10,474,232	\$7,974,516

Research and Development Projects (7 projects out of 11 projects)

DWR ID	Applicant	Project Title	Project Cost	\$ Requested	\$ Awarded
003	Regents of the University of California	UCLA Desalination Research Innovation Project	\$2,678,853.00	\$1,000,000	\$1,000,000
014	Municipal Water District of Orange County	Horizontal Well Technology Application in Alluvial Marine Aquifers for Ocean Feedwater Supply and Pretreatment	\$2,336,903.00	\$1,000,000	\$1,000,000
020	Lawrence Livermore National Laboratory	Desalination Using Electrostatic Ion Pumping	\$1,991,390.00	\$995,695	\$995,695
001	Board of Water Commissioners of the City of Long Beach	Ultraviolet Light and Chlorine Dioxide Seawater Pretreatment Systems for Biogrowth Control and Pathogen Inactivation	\$2,000,000.00	\$1,000,000	\$1,000,000
013	Regents of the University of California	Developing a Tool to Guide State and Local Desalination Planning	\$2,597,149.00	\$909,051	\$909,051
008	Calleguas Municipal Water District	Study of Low Concentration Metals Removal from Brine	\$200,000.00	\$100,000	\$100,000
023	Joint Water Reuse & Desalination Task Force (JWR&DTF)	Joint DWR-JwR&DTF Seawater and Brackish Water Research and Development Program	\$2,000,000.00	\$1,000,000	\$1,000,000
Total			\$13,804,295.00	\$6,004,746	\$6,004,746

Feasibility Studies (9 projects out of 9 projects)

DWR ID	Applicant	Project Title	Project Cost	\$ Requested	\$ Awarded
041	San Benito County Water District	Pajaro Watershed Groundwater Desalination Feasibility Study	\$490,000.00	\$245,000	\$245,000
007	East Bay Municipal Utility District, on behalf of the Bay Area Regional Desalination Partnership	Bay Area Regional Desalination Project	\$499,512.00	\$249,756	\$249,756
040	City of San Diego	San Diego Formation Brackish G.W. Desalination Project - Phase II	\$500,000.00	\$249,700	\$249,700
025	The Association of Monterey Bay Governments (AMBAG)	Desalination Feasibility Study in the Monterey Bay Region	\$211,970.00	\$100,000	\$100,000
027	West Basin Municipal Water District	Full Scale Seawater Desalination Facility Permitting Requirements in the Santa Monica Bay Area	\$590,820.00	\$246,005	\$246,005
035	San Diego County Water Authority	Feasibility Study for Seawater Desalination at the San Onofre Nuclear Generating Station	\$800,000.00	\$250,000	\$250,000
006	Western Municipal District	Feasibility Study for the Expansion of the Arlington Desalter	\$595,218.00	\$249,992	\$249,992
015*	East Niles Community Services District	Saline Shallow Groundwater Recovery Project	\$249,541.00	\$249,541	\$249,541
016	Montara Water and Sanitary District	Feasibility Study of Brackish Water Desalination	\$500,000.00	\$250,000	\$250,000
Total			\$4,437,061.00	\$2,089,994	\$2,089,994

* Subject to resolving matching fund requirement of the Bond Act with the grantee.

Grand Total: \$25,000,000

In the event an applicant declines the award for any reason, DWR reserves the right to reallocate the fund to other projects in the funding list or to not use the fund in this funding cycle. Summaries and contact information of the 25 awarded projects can be viewed at:

http://www.owue.water.ca.gov/recycle/DesalPSP/Funded_Projects-Summaries.pdf.